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Application Serial No.: 10/627,143  
Applicant(s): Spector et al.

JAN 08 2007

Docket No.: N.C. 84,766

REMARKS

Claims 1-33 remain in this application. Claims 1-26, 28, and 29 have been withdrawn.  
Claims 27, 30, 31, and 33 have been rejected. Claim 32 has been objected to.

## Specification

The abstract has been objected to as being too long.

Applicants respectfully disagree and respectfully request a re-count and re-consideration.

## Claim suggestion

Applicants wish to thank the Examiner for the claim suggestion. Claim 31 has been amended to reflect the Examiner's claim suggestion.

## Claim objections

The Examiner has objected to Claims 31 and 32 because of misspellings. Applicants wish to thank the Examiner for pointing out these misspellings. Applicants have corrected these typographical errors.

## Claim rejection under 35 USC 112

The Examiner has rejected claims 27 and 30-33 under 35 USC 112, second paragraph, as being indefinite.

Claims 27 and 33 have been amended so they do not now depend from a withdrawn claim. The amendment also obviates the rejection pertaining to any implication by using the article "a" and any rejection concerning any indefiniteness of the claim.

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Applicants respectfully request reconsideration.

#### Claim rejection under 35 USC 102

The Examiner has rejected claims 27, 30, 31, and 33 under 35 USC 102(e) as being anticipated by Boschetti et al.

The Examiner states that Boschetti discloses a method for assaying analytes with a device comprising a support having a *polysaccharide-based* hydrogel attached to an anchor reagent on a substrate surface.

Boschetti involves the use of a polysaccharide, as noted by the Examiner.

Applicants respectfully submit that the current application involves the use of a regioregular polyacrylate poly(6-acryloyl-beta-O-methyl galactopyranoside). This is separate and distinct from a polysaccharide.

As noted by the Examiner, throughout Boschetti is the use a "non-ionic polysaccharide" base material which serves as a support for proteins, DNA, and cells. This is in contrast to the current application. The current application involves a gel that is *not* composed of polysaccharide, but of the regioregular polyacrylate poly(6-acryloyl-beta-O-methyl galactopyranoside).

Applicants respectfully submit that polysaccharides have a composition and chemical structure that is very different from this polyacrylate. Images attained via light microscopy clearly show that the polyacrylate network has about a 10-micron average pore diameter. Furthermore, the network of the polyacrylate is interpenetrating.

In addition, Applicants have utilized a series of calculations using Fick's diffusion laws and the Navier-Stokes equations that also indicate that the pore sizes are about 10 microns in

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diameter. Applicants respectfully submit that the large pore sizes and IPN architecture can be advantageous from the standpoint of rapid solute (target) diffusion and gel mechanical integrity. Polysaccharides do not have this architecture.

Applicants respectfully submit that Boschetti does *not* involve a poly(6-acryloyl-beta-O-methyl monosaccharide) structure as a base material, whereas the current application has utilized this structure. Furthermore, applicants respectfully submit that the fact that this material has such large pores and a mechanically strong IPN structure would *not* have been obvious to one skilled in the art.

Applicants respectfully request reconsideration.

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Conclusion

In conclusion, Applicants respectfully submit that the Examiner's Office Action has been fully responded to with traverse and that the claims are in condition for allowance. In the furtherance of compact prosecution, if a personal or telephone interview would help expedite matters, the Examiner is requested to contact Steve Hunnius at 202-404-1554.

Kindly charge any additional fees due, or credit overpayment of fees, to Deposit Account No. 50-0281.

Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



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